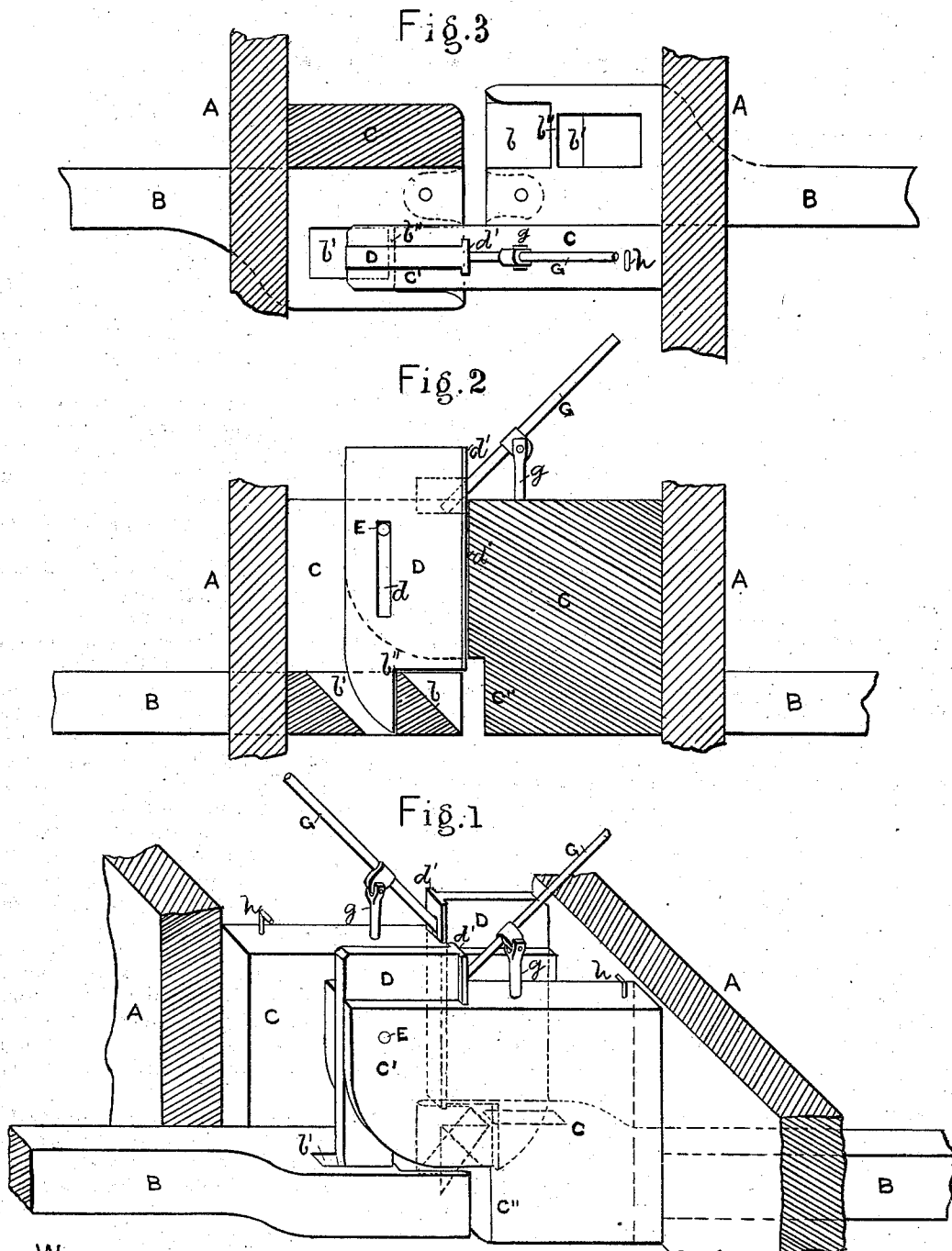


T. ELLISON.
Car-Couplings.

No. 150,407.

Patented May 5, 1874.



WITNESSES

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UNITED STATES PATENT OFFICE.

THOMAS ELLISON, OF ABINGDON, ILLINOIS.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **150,407**, dated May 5, 1874; application filed February 11, 1874.

To all whom it may concern:

Be it known that I, THOMAS ELLISON, of Abingdon, county of Knox and State of Illinois, have invented certain Improvements in Car-Couplings, of which the following is a specification:

My invention relates to improvements in devices for coupling cars; and the invention consists in the construction and arrangement of latch-shaped blocks or plates which enter and engage with slotted draw-heads to couple the cars to each other without the use of connecting-links, and which are readily and easily disconnected by levers when it is desired to uncouple the cars, all as hereinafter more fully set forth.

To enable others skilled in the art to make and use my improved coupling, I will now proceed to describe the same with reference to the accompanying drawings, in which—

Figure 1 is a perspective view, showing my improved coupling device. Fig. 2 is a vertical sectional view, and Fig. 3 is a top plan view.

Referring to the parts by letters, letters A A represent the ends of two adjacent cars coupled by my improved device. B B represent the draw-heads, one side of each of which has an opening or slot with an inclined face, *b*, in front, and a similar-shaped slot, *b'*, in rear, the two slots or openings *b b'* being divided by a wall, *b''*. On the other side of the draw-head is a block, C, the upper end, *C'*, of which projects forward, and is rounded off, as shown, at its lower forward corner, and is vertically grooved for the reception of the latch-shaped catches, and its lower front portion *C''* forms a bumper to sustain the blow from an approaching car. D D are latch-shaped plates or blocks, the lower ends of which are rounded off in front and cut with a right-angular notch in rear. They are also cut with vertical slots *d*, and provided at their rear ends with tongues or ledges *d'*, which fit corresponding grooves in the blocks C C. E is a pin or bolt passed lat-

erally through the block C and slot *d* of the latch D. G G are levers pivoted on posts *g g* secured to the blocks C C. Their forward ends are pivoted to the latches D D. *h* is a catch, also secured to the block C, and serves to secure the lower end of the lever G when the latch is raised.

The operation of my invention is as follows: As the cars come together the rounded forward ends of the latches D D enter the outer slots of the draw-heads, and, coming in contact with the inclosed faces *b b*, they will be forced upward until their points pass over the wall *b''*, when they will fall, by their own gravity, into the slots *b'*, and securely hold the cars together until uncoupled by raising the latches D by forcing down the levers G. The latches thus slide up and down in the slots or grooves in the forward ends of the blocks C C, coupling the cars automatically. When desired, they may be retained in an elevated position by hooking the levers G in the catches *h*.

By having two latches, D D, in each draw-head it will be evident that when a car is turned end for end it will not disarrange the coupling features. A hole may be bored in the forward end of either or both draw-heads, and a funnel-mouth be added for the purpose of coupling to the ordinary draw-head and link-and-pin couplings.

I claim—

1. The latch D, having the vertical slot *d* and rounded and notched lower end, in combination with the grooved block C, having bumper *C''*, and the draw-head B, having slots *b b'*, substantially as and for the purpose specified.

2. The combination of the latch D, block C, draw-head B, and lever G, constructed to operate as and for the purpose specified.

THOMAS ELLISON.

Witnesses:

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